

BPL is an awful idea from a technological standpoint. To believe that any usable level of RF signal can be injected into a power distribution system without causing significant interference to the licensed users of the HF and low VHF spectrum is simply folly.

The HF and low VHF spectrum is utilized by many essential services, as noted in the Notice of Proposed rulemaking. These services are located at these frequencies because they hope to maintain long-distance communication. Due to the variations of ionospheric propagation, causing periodic fading, the level of received signals often drop to near or below the ambient noise floor at the received location. Therefore “harmful interference”, from which these licensed services must be protected by unlicensed Part 15 devices and systems, could include any radiation which raises the noise floor.

I am a licensed extra-class Amateur Radio Operator, K8IR, so my concerns are personally with the potential interference to the Amateur Radio Bands. The potential for interference to Amateurs may be greater than to some other services, since we live in residential areas and our antennas are located, in many cases, just a few meters from power distribution wires. But the other services in the spectrum are also subject to receiving harmful interference. The long-distance ionospheric propagation that makes the HF spectrum ideal for these services is also capable of distributing the radiated emissions of BPL systems around the world.

According to information provided by the American Radio Relay League, (<http://www.arrl.org/tis/info/HTML/plc/files/C63NovPLC.pdf>) , the existing Part 15 limits could still allow significant harmful interference to Amateur Radio Communications. There is also the potential for Amateurs operating within their licensed limits to provide significant interference to BPL systems in neighborhoods.

The potential for interference between licensed Amateur and other HF/VHF services and unlicensed BPL systems could be a nightmare for Power Companies. Even without BPL, power line interference from cracked insulators, rusted hardware, etc, is a continuing problem for both licensed spectrum users, including Amateurs, and Power Companies who must deal with the complaints.

Widespread access to the Internet and other data services is a noble goal. But there are technologies (Cable, DSL, Wireless), which are fulfilling that need today. If Power Companies want to get into this area, why not use their existing infrastructure of Power Poles to support shielded transmission lines designed to carry HF/VHF RF without radiation, or Wireless antennas, rather than trying to use the power lines themselves for a task that they we never designed for, and which are almost certain to cause harmful interference to other licensed users.

In order to protect the existing licensed users of the HF/VHF spectrum, I feel it is imperative that radiated, not conducted, measurements of the BPL systems must be required, and the Commission must look at reducing the limits of radiated signal now allowed under Part 15.